

# **QT-Brightek Chip LED Series**

## **SMD 0603 Red LED**

**Part No.: QBLP601-R5**

**5: 5mA**

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## Introduction

### Feature:

- Water clear lens
- Color: Red
- Package in tape and reel
- Ultra bright 0603 LED package
- AlInGaP technology
- Viewing angle: 140 deg typ.

### Description:

These ultra bright 0603 LEDs have a height profile of 0.60mm. Combination of high brightness output and small footprint, these LEDs are ideal for keypad backlighting and status indication.

### Application:

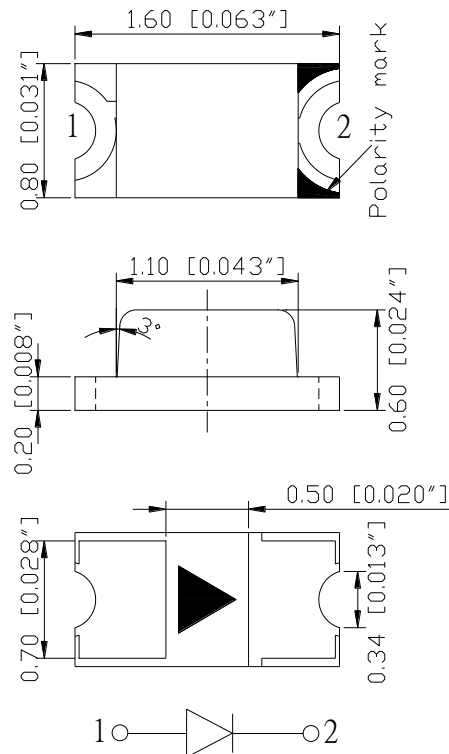
- Status indication
- Back lighting application

### Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant



### Dimension:



Units: mm / tolerance = +/-0.1mm

**Electrical / Optical Characteristic (Ta=25 °C)**

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>D</sub> (nm)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP601-R5	Red	5	1.8	2.3	620	625	630	16	27

**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SO L</sub> (°C)**
AllnGaP	75	30	125	5	-40 ~ +80	-40 ~ +85	260

\*Duty 1/8 @ 1KHz

\*\*IR Reflow for no more than 10 sec @ 260 °C

**Forward Voltage V<sub>F</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
A	1.7	2.0	V
B	2.0	2.3	

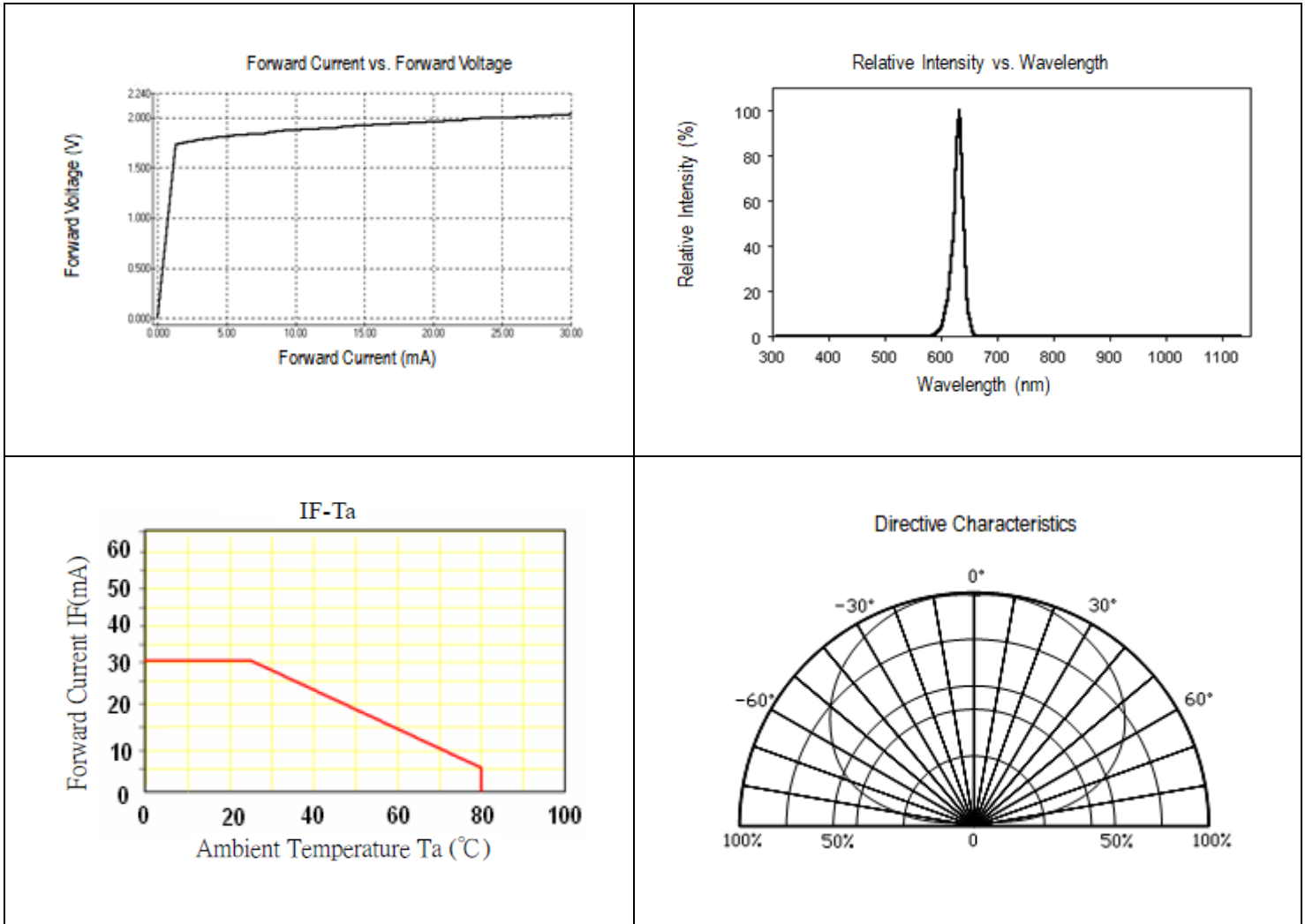
**Luminous Intensity I<sub>V</sub> @ I<sub>F</sub>=5mA**

Bin	Min.	Max.	Unit
B	16	20	mcd
C	20	25	
D	25	32	
E	32	40	
F	40	50	

**Dominant Wavelength λ<sub>D</sub> @ I<sub>F</sub>=5mA**

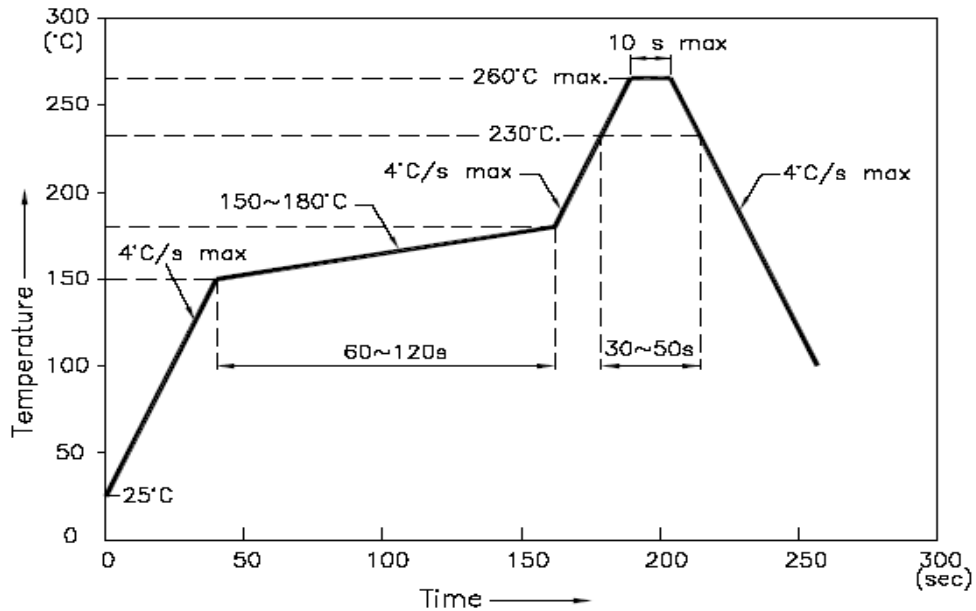
Bin	Min.	Max.	Unit
t	620	625	nm
u	625	630	

### Characteristic Curves

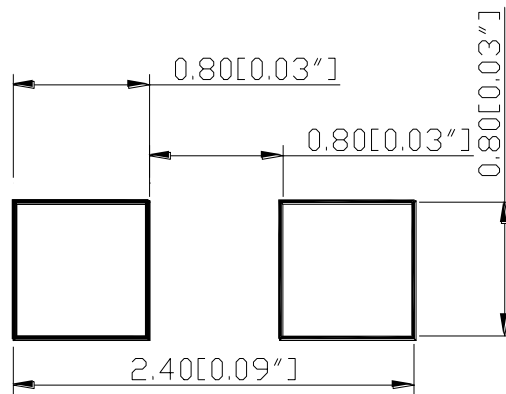


## Solder Profile & Footprint

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



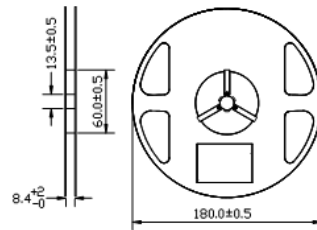
### Recommended Pad Layout



Units: mm

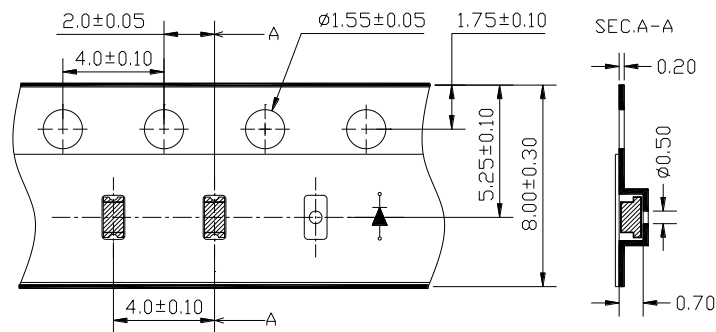
## Packing

### Reel Dimension:



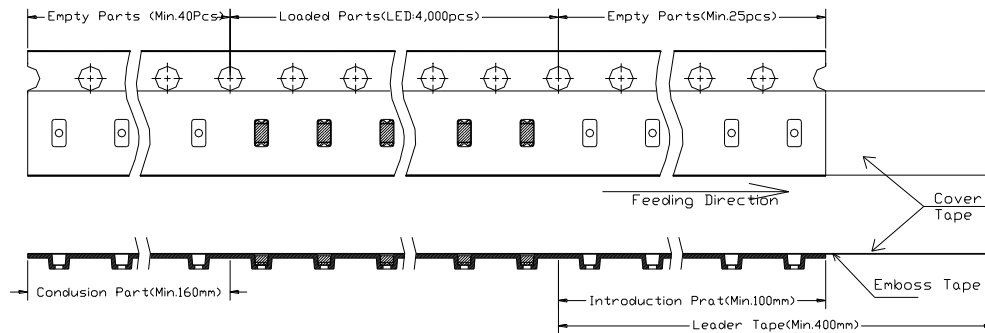
Unit: mm

### Tape Dimension:

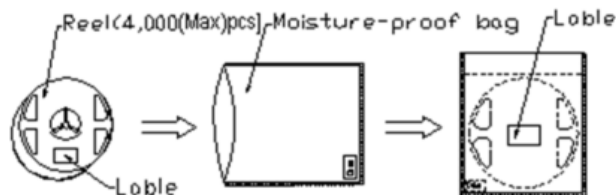


Unit: mm

### Arrangement of Tape:



### Packaging Specifications:



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### Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP601-R5	QBLP601-R5	I <sub>v</sub> =27mcd typ. @ I <sub>F</sub> =5mA / Color=620 to 630nm	4,000 units



**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP601-R5	V1.0	08/19/2021

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2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.